Toronto Office





# The Province of Alberta

IN THE MATTER OF "THE NATURAL GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into Scheme to be adopted for Gathering, Processing and Transmission of Natural Gas in Turner Valley

G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

*Session:*

CALGARY, Alberta December 17th, 1945

VOLUME 60

# I N D E X

VOLUME 60 PAGE

December 17th, 1945.

WITNESS.



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VOLUME 60

9.30 A.M. Session,
December 17th, 1945.

ROBERT WINSLOW HAMILTON, having been recalled, direct examination by Mr. Blanchard, continued.

WITNESS: Page 33, at the bottom, sir; on Tuesday last we were about to commence the section dealing with the Madison operating costs which are dealt with in section 7, commencing at page 33.

SECTION VII

MADISON OPERATING COSTS

Madison report M 9 reflects in detail the approximate cost for the year 1944 and the anticipated cost for the years 1945 to 1948 inclusive, of:

a) Primary operating departments, namely,
   1) Scrubbing
   2) Compression
   3) Gathering
   4) Transmission of G.O.R. residue and
   5) Repressuring, and secondly

b) Auxiliary services such as boiler plant, electric plant, water station and other similar indirect services.

In the case of each department costs submitted are classified as to:

1) Direct expense
2) Administrative and general expense
3) Depreciation
4) Return on capital
5) Contingency for unforeseen expenses.

Direct expense, in the case of the primary operating departments, includes costs transferred from the service depart-

ments including depreciation and return on investment within the service departments.

DIRECT EXPENSE

After eliminating elements of indirect depreciation and return on capital employed in the case of all primary operating departments, the residual direct expense for the year 1944 has been compared with the results of our examination to August 31, 1944 and found substantially to correspond; in due course we propose to confirm the approximate 1944 costs submitted in report M 9-A with the actual year-end results as reflected by the Madison books.

It will be observed that a fairly substantial proportion of the total direct expense of the primary operating departments represents transfers from the service departments, such as boiler plant, electric plant, water station, etc. In some cases these costs are of necessity allocated on an arbitrary basis, but we are satisfied on the whole that every effort is made to distribute the costs of these service departments to the primary operating departments and also to affiliated companies in accordance with the best available information.

It should also be pointed out that in a number of cases expenses of the primary operating departments and service departments emanate from charges made by affiliated companies, principally the Royalite Oil Co. Ltd. By reason of the close association of the Madison Company with its affiliates, there is a substantial interchange of services, and we are informed that every effort is made to see that the company rendering the service, charges the company receiving the service on an actual cost basis. Incidental

to certain aspects of our investigation, we made a study of the records of the Royalite Oil Co. Ltd. for the year 1943 and from that examination we are satisfied that it has been the intention of company officials throughout to transfer the cost of inter-company services on an approximate cost basis, and we are satisfied on the whole with the propriety of the principles, and procedures employed.

Reference was made to our intention to compare the approximate 1944 costs with those finally resulting from the operations for the year ending December 31st, 1944 and that has been done. The expenses as projected by the company in its statement M-9-A are balanced out by the year-end result and the inclusion of the conjectured provision of $20. to which reference has already been made.

ADMINISTRATIVE AND GENERAL EXPENSE

With regard to the charges making up the total administrative and general expense, we have the following comments to offer:

1) Two officials of the company devote a portion of their time to the activities of related companies, and a portion of salaries and the cost of employee benefits are transferred to the affiliated company in accordance with time estimates submitted periodically by the officials concerned.

I am speaking there of Mr. Trammell and at that time Mr. Kirkpatrick.

2) The expense of rate hearings has been included in the five-year costs in a total estimated amount of $50,000.

3) The costs for the year 1944 include death benefits of $3,840, no provision being made for the years

1945 to 1948 of a similar character. Professional fees include in the year 1944, certain organizational costs of a non-recurrent nature. And they have been charged to expense and not capitalized.

In the Madison submission, administrative and general expense has been apportioned amongst the primary operating departments, and I have excepted the south residue system and the repressure system. That exception relates only to the year 1944 and not to the remaining years, and the boiler and electric plants, on the basis of the direct operating expenses incurred in each department. This method of apportionment would appear satisfactory.

DEPRECIATION

The Madison submission includes as depreciation for each department, only the depreciation applicable to the assets of that department. Further depreciation is inherent in Direct Operating expense in respect to that depreciation which comprises part of the apportioned cost of auxiliary service departments.

In other words, whereas they will show for depreciation a certain amount against the scrubbing plants that amount of depreciation relates only to the direct depreciation of assets in the scrubbing plant. There will be also in the direct expenses of the scrubbing plant the cost of steam, electricity and other services, and that cost in each case will have in it the element of depreciation, based on the assets of the services department from which the charge comes.

Madison's basis of computing depreciation is, to apply a scrubbed gas sales formula to the bulk of the fixed assets, but to apply specific straight line percentages to certain

special assets (See M 9-D). In section VI of this report, we have discussed the principles of depreciation as they appear to apply to the assets involved and have suggested certain criticisms of the Madison scheme of depreciation as outlined in M 10. For purposes of cost forecast, however, we believe the annual percentages suggested by Madison are substantially correct, subject of course to the propriety of their estimates of annual throughput.

In the discussion of Alternative Costs which follows, the effect of substituting alternative opening rate bases will be presented.

RETURN ON INVESTMENT

Madison's costs are based on a 15 5/6 (net 9½)% return per annum on average annual rate base, plus working capital of $190,000 and Prepaid Girbotol Royalty.

The opening rate base is in accordance with the appraisal valuation submitted by Messrs. Ford, Bacon & Davis, but excludes certain specific items previously referred to. We present in our subsequent discussion of Alternative Costs, the approximate effect of substituted rate bases and a selected lower rate of return of 11 2/3 (net 7)%.

Madison's apportionment of Working Capital by departments would seem satisfactory.

Our comments relative to rate of return are presented in Section III of this report.

PROVISION FOR CONTINGENCY (UNFORESEEN EXPENSES)

Madison has made an allowance of $20,000 per annum for unforeseen expense which has been apportioned over operating departments, and the exception which folows , with the exception of the Repressure and Residue Transmission functions. And that exception applied only to the year 1944.

Whereas we agree in principle with the propriety of conservative appreciation of the factors involved in rate sufficiency, it appears to us that the appropriate point to introduce the contingency factor is in setting the final rate after all factors have been taken into account on as accurate a basis as possible. In so doing the Board may then give effect to a general contingency allowance to cover all factors such as variations in cost, throughput, field reserves, and other estimates entering into the service rate. Consequently, in our Alternative Cost presentations, the specific provision has been eliminated.

In view of the remarks I made a moment ago with respect to the comparison of the actual results of 1944 with the projected costs I would be prepared to withdraw my reservation on this score at this time. It seems that the contingency made by the company in estimates had been borne out by actual performance.

COMPARATIVE OVER-ALL COST OF ESTIMATES - MADISON.

With a view to affording some indication of the effect of introducing certain variations in the cost accounting, we submit the following statements of comparative estimated operating costs:

Statement WH 46, dealing with Scrubbing.

Statement WH 47, dealing with Compression, (Combined)

Statement WH 48, dealing particularly with the No. 1 (Main) Compressor. And

Statement WH 49, dealing with the No. 3, Field Compressor.

Statement WH 50, dealing with Gathering.

Statement WH 51, dealing with the G.O.R. Residue Transmission, and

Statement WH 52, dealing with Repressuring.

Costs shown separately for No. 1 (Main) Compressor and No. 3 (Field) Compressor are combined in the Cost of Compression, which is eventually apportioned, as in the Madison submission, to the cost of Gathering, Residue Transmission, and Repressuring. Each of these statements is prepared in comparative form showing functional costs on the following bases:

Now this is a similar treatment with that which we presented in connection with the British American.

First of all we show a column based on the Madison assumption of rate base and rate of return and we have this Madison basis - Per Madison report M 9, compared with that we also submit alternative basis B, in which the operating expenses and administration are, as in the foregoing basis, and have been adopted. There has been eliminated the contingency provision, plant fuel cost has been added, the rate base has been changed to $789,648.81, which is the historical cost less booked depreciation and working capital of $140,000.00.

Two sets of answers are shown on the same facts:

1) On the rate of return of 15 5/6, net 9½, % and the other the lower rate of 11 2/3, net 7.

We also submit alternative basis C in which again the operating expense and administration costs as adopted by Madison, the contingency provision eliminated, plant fuel added, rate base now of $1,607,468.40, which was the rate base resulting from our WH 7.presentation and subsequently was adjusted historical cost less accrued depreciation with the exception that for separate items of the plant we used the appraisal valuation suggested by Mr. Hill and a working alternative of $140,000.00.

Return on investment has been taken as 15 5/6 or net 9½% and then again at 11 2/3, net 7.

It reads as follows:

Madison Basis - Per Madison report M 9 (adjusted to segregate indirect depreciation and return on investment) - total opening rate base $2,070,085.87 and working capital of $190,000.00.

Alternative Basis B - Operating expense and administration as per Madison - contingency provision eliminated - plant fuel added - total opening rate base $789,648.81 (historical cost less booked depreciation) and working capital of $140,000.00.

1) Return on investment of 15 5/6 (net 9½)%.

2) Return on investment 11 2/3 (net 7)%.

Alternative Basis C - Operating expense and administration as per Madison - contingency provision eliminated - plant fuel added - rate base $1,607,468.40 (per WH 7) and working capital of $140,000.00.

1) Return on investment of 15 5/6 (net 9½)%.

2) Return on investment 11 2/3 (net 7)%.

The application of the variations suggested in Basis B-1 results in a reduction of the net over-all average annual cost of $224,036.16 (without changing the rate of return), summarized as follows:

Now perhaps we might have a look at statement WH 46.

Statement 46 deals with the cost of the scrubbing function and the three bases are presented in parallel form.

Estimates are shown for the years 1944 to 1948 inclusive. There has been added a column to show the estimated annual average and then that total average annual cost is reduced to a unit cost basis, projected on the assumption

discussed in connection with the calculation of the volume of rateable gas.

It will be observed that on the Madison basis, the average cost per rateable m.c.f. is 2.296; on the alternative Basis B-1, that figure becomes 1.687 and at the lower rate of return, 1.598.

On Alternative Basis C-1, the rate becomes 2.156.

And on Basis C-2, that is with the lower rate of return, 1.968.

It is interesting to note that these average annual costs reflect some substantial fluctuation from year to year and to demonstrate that you will notice immediately below the summary of the Madison costs, that is towards the top of the page, we have shown the estimated costs per m.c.f., which ranges from 2.09 in 1944 to 1.999 in 1945, 2.237 in 1946; 2.596 in 1947 and 2.8548 in 1948, which shows the gradual upward trend.

And all of those resolve themselves into an average cost of 2.296,but I want to emphasize the danger involved of course in using arithmetical averages in the fact that the annual result from year to year will vary considerably according to the throughput.

Madison bases B and C provide for fuel in an estimated amount of $6,107.62, which has been discussed in the previous section dealing with fuel costs.

The credit allowed for Scrubbing Plant fuel very largely offsets the cost of Plant fuel in this, the allowance of $4,334.52. The estimated value of the services for scrubbed gas at the rate of 2 cents per scrubbed m.c.f. on that type of

fuel which is scrubbed.

Now, sir, Statement WH 47 is a statement showing the cost of compression and embraces both the No. 1 and No. 3 Compressor Stations, which are dealt with separately in the two statements which follow, Statement 48 and Statement 49.

There again you will notice substantial variation in the net costs according to which rate bases are adopted and furthermore there will be observed substantial variation between one year and another as set out by the range of figures, 1.45 in 1944 up to 2.3 cents per m.c.f. in 1948, the average being, on the Madison basis, 1.72 for that five-year period.

(Go to page 4741)

The two statements which follow as I mentioned a moment ago deal with the two separate plants which are shown combined in the statement which we have just referred to.

Statement 50 deals with the cost of gathering gas on the bases above and you will find a new element appear wherein it is necessary to add to the primary gathering cost a proportion of the cost of the No. 1 and of the No. 3 Compressor stations for the element of service rendered by those two stations to the gathering function. The method of allocating is that adopted by Madison and we have not suggested any variation to their method in that respect. The total prime cost of gathering on the Madison basis is 1.72 cents to which there must be added 1.02 cents for the No. 1 main Compressor and approximately .7 cents for the No. 3 Compressor station. So that the total cost of gathering and compressing would on the Madison basis amount to 3.44. On basis B-1 however that cost would be reduced to 2.47 cents per Mcf. Basis B-2, 2.23 cents per Mcf. Basis C-1, 2.9 cents per Mcf and Basis C-2, 2.568 cents per Mcf. Here again the gathering cost per Mcf reflected quite a fluctuation from year to year running from 2.6 per Mcf in 1944 on the Madison basis to as high as 4.7 in 1948. The average being 3.44.

Statement 51 deals with the cost of transmitting the G.O.R. residue gas from the G.O.R. plant across to the No. 3 Station and back into the British American residue transmission line. Part of the cost of maintaining the No. 3 Compressor station has been allocated to this function and it amounts to approximately 2.98 cents per Mcf. on the Madison basis. The prime cost of maintaining the lines including depreciation and return for the actual transmission of gas works out at .97 per

Mcf rateable and to that must be added 2.98 cents for compression and then there must also be added an amount for the use of the British American transmission line which is estimated here at .94 cents per Mcf to make the total cost delivered at the scrubber of 4.89 cents on the Madison basis. The annual fluctuations range from 4.3 cents in 1945 up to 5.747 cents in 1948. Adopting Bases B-1 and B-2, C-1 and C-2 results in certain variations in the unit costs but the variations here are not nearly as substantial as they are in the other functions.

Statement 52 deals with the cost of repressure functions. Here again there has to be absorbed part of the cost of the No. 1 Compressor and we have adopted the basis of apportionment as per Madison. There was a slight expenditure in 1944 of approximately $1400.00 but as no repressuring was performed in that year that amount is transferred over to be picked up in 1945. The expenditure was not a direct cost but is represented by depreciation and return on investment. Assets provided for repressuring which were not actually used until 1945. I think the amount involved is probably the simplest way of disposing of that item. The unit cost per rateable Mcf including compression on the Madison basis amounts to 2.47 approximately and the annual rate estimated will range from 2.12 in 1945 to as high as 3.376 in 1948.

Switching to alternative basis B-1 would reduce the cost to 2.076 cents. Basis B-2 would result in a cost of 1.84. Basis C-1 would result in a cost of 2.267, and C-2, a cost of 1.989.

I am referring again now to Page 38 which deals with the overall picture of the effects of these variations in cost determination. The paragraph at which we diverted our attention

read as follows:

"The application of the variations suggested in Basis B-1 results in a reduction of the net overall average annual cost of $224,036.16 (without changing the rate of return) summarized as follows:

| | | |
|---|---|---|
| Net Overall Annual Average Cost (Applicable to gas business) according to Madison | | $879,256.51 |
| To which there is added an amount of $9,648.26 for the cost of plant fuel used | $13,982.78 | |
| Less additional revenue for scrubbing that portion which is scrubbed. | 4,334.52 | 9,648.26 |
| | | $888,904.77 |
| And then there is deducted that Elimination of Contingency Provision | 20,000.00 | |
| Reduction in Depreciation charge | 43,547.48 | |
| And a Reduction in Return on Investment of | 170,136.94 | |
| Making total deductions of | | 233,684.42 |
| And the net overall annual average cost (Applicable to Gas Business) as per Basis B-1 | | $655,220.35 |

Alternative Basis B-2, prepared on the same basis as above but substituting a rate of return of 11 2/3 (net 7) % for a rate of 15 5/6 (net 9½) % results in a net overall average cost of $601,806.56, a further reduction of $53,413.79. Just by changing the rate of return.

The application of the variations suggested in Basis C-1 results in a reduction of the net overall annual average cost of $96,216.66 as compared with the Madison basis (without changing the rate of return), summarized as follows:

| | | |
|---|---|---|
| Net Overall Annual Average Cost (Applicable to gas business), per Madison | | $879,256,51 |
| Add: Charge for plant Fuel used | $13,982.78 | |
| Less: Allowance for Scrubbing | 4,334.52 | 9,648.26 |
| | | 888,904.77 |
| And then there is the deduction: | | |
| Elimination of Contingency Provision | 20,000.00 | |
| A saving in Depreciation | 21,430.46 | |
| A saving in Return on Investment | 64,434.46 | 105,864.92 |
| Making a Net Overall Annual Average Cost (Applicable to Gas Business) as per Basis C-1 | | $783,039.85 |

Alternative Basis C-2, prepared on the same basis as above, but substituting a rate of return of 11 2/3 (net 7) % for a rate of 15 5/6 (net 9½) %, results in a net overall annual average cost of $701,809.63, a further reduction of $81,230.22.

It will be observed that bases C-1 and C-2 are comparable with bases B-1 and B-2 respectively, except for the substitution of an opening rate base of $1,607,468.40 for bases C-1 and 2 in place of $789,648,81 for bases B-1 and 2.

COMPARATIVE FUNCTIONAL COSTS - (MADISON)

The following table presents in summary form the total average cost of performing the various Madison functions on the various bases above outlined. I think I need not read that, sir.

Turning to Page 41.

COMPUTATION OF UNIT COSTS - (MADISON)

Corresponding to the comparative functional operating costs just presented, we submit the following tabulation of average unit costs on assumed rateable volumes for each function and these unit costs which follow are predicated on some

rather important assumptions as to what gas is rateable and on what basis. Then follows a table showing the costs of the various functions reduced to a unit per Mcf basis. The average rateable volumes assumed for computation of this unit cost are as follows:

| | |
|---|---|
| Scrubbing | 13,466,728 Mcf |
| Gathering | 13,681,873 |
| G.O.R. Residue | |
| Transmission | 1,276,000 |
| Repressuring | 2,489,325. |

In this connection, reference will be found in Madison M-13, M-12-A and M-14, to certain unit costs which are considerably at variance with those noted above based on Madison's own costs. For example, Madison's statement M-13 shows the cost per scrubbed Mcf of 2.190961 and a cost per scrubbed gas sales Mcf of 2.371723, whereas we show as a scrubbing cost per rateable Mcf of 2.296310. It is to be recognized, however, that the Madison submission does not deal (except perhaps inferentially) with the question of what gas is rateable for scrubbing purposes.

Similarly, Madison's statement M-12 shows a gathering cost per Mcf of 2.949478 as compared with our cost as above on the Madison basis of 3.441414. This disparity is again attributable to the fact that our unit cost is related to an assumed rateable throughput, whereas the Madison cost is related to the total throughput.

I think sir we might now pass to Section X, which would logically come next.

SECTION X AVERAGE UNIT COST OF SCRUBBED GAS

Combining the information contained in Sections VII and VIII with regard to unit costs, the following table is submitted showing the average cost of gas delivered to

the market, based on Alternative Cost Basis C-2.

I have selected that merely for demonstration purposes and we have assumed that gas would be provided out of the present system to the extent of 8,512,125; from G.O.R. to the extent of 1,276,000; and from the British American 2,645,475 Mcf. A total amount of 12,433,600 Mcf. Unit costs then follow. The Madison gas cost 2.748 cents to gather and 1.968 cents to scrub, making a total cost Mcf of 4.716 cents.

The G. O. R. Gas is assumed to be gathered free. There is a transmission charge however of 4.476 cents and again the scrubbing cost of 1.968 cents, so that the G. O. R. has unit cost of 6.444 cents. The British American cost of gathering gas of two cents; a transmission cost of 2.145 cents and again the scrubbing cost of 1.968 cents, making a total cost of that gas 6.136 cents.

Combining these unit costs and weighting them of course to the extent of their respective volumes, the Madison cost 4.7 cents against the G. O. R. of 6.44 and the British American of 6.136 cents costs gives an average cost of 5.19617. The average rate of 5.196 applies to sales of 12,433,600 Mcf and will produce $646,070.00. In addition there would be available the further amount of $53,400, contributed by the absorption plants toward gathering costs (on a volume basis if adopted) and $177,100 contributed by unspecified beneficiaries for the gathering, transmitting, and scrubbing of non-market gas (Bow Island Town deliveries, and Turner Valley and Bow Island storage). These three sums added together will produce $876,570 in comparison with combined average operating costs of the two Utilities of $903,800. The deficiency of approximately $28,000 is attributable to the employment, in

comparisons, of five-year and four-year average costs, volumes, and unit costs.

We have previously indicated that the assignment of costs to the absorption plants has been on a basis of proportional volumes of extraction and residue; we appreciate however that many considerations apart from cost will have a bearing on this apportionment.

Moreover, various factors extending beyond the scope of accounting enquiry, will require to be examined by determining the responsibility for processing costs of non-market gas.

It will be apparent that variations in assumed throughputs and deliveries will substantially affect unit costs, and averages predicated on assumed volumes are, therefore, subject to the reasonableness of the estimates to which they are related.

That disposes of all our submissions in chief, sir, with the exception of the Chapter dealing with the rate of return.

MR. CHAMBERS: I would prefer, Mr. Hamilton, to deal with the rate of return section so that I can deal with the whole thing on cross-examination.

( Go to Page 4748 )

THE CHAIRMAN: Have you anything further in direct examination, Mr. Blanchard?

MR.BLANCHARD: No sir.

THE CHAIRMAN: All right, Mr.Chambers.

MR. CHAMBERS: I understood he was going to deal with the rate of return, Section 2.

THE CHAIRMAN: Oh, I thought that you were suggesting that it should be kept separate, I am sorry.

MR. CHAMBERS: Just the opposite, if it is all right with you, Sir.

THE CHAIRMAN: The record is in such an unholy mess now we might as well make it worse.

MR. CHAMBERS: The return enters into the statement he has read.

THE WITNESS: I am reading now from page 18, comprising Section 3, dealing with the utility company rates of return.

By far the most important element of the service rate in the early years will be the return on investment. To demonstrate this, the following table is presented showing the return on capital employed in relation to the total operating costs to be borne by utility customers, on the basis of the Madison proposal outlined in Report M-9. And the Table which follows shows for each of the years 1944 to '48 the total return on Capital employed, Direct and indirect, for each year, and the Net Operating Cost to be borne by the customers, and in the final column the Percentage which the Return comprises to the total operating costs, and it will be observed that the percentage ranges from 41% to 43.6%.

Similarly, it will be observed from

B.A. Volume 3, page 1, that the proposal of that company involves a return on capital amounting to 41.9% of the total service cost for the period 1945 to 1948.

Assuming that after the first few years the rate base steadily declines, the element of the service rate representing return on investment will likewise decline to the point where it ultimately represents a very small part of the overall cost. We have observed in this connection with some interest, the evidence before the Public Utilities Commission in the 1943 Valley Pipe Line hearing, relating to the problem which arises in affording adequate compensation and incentive to a utility company operating a wasting asset towards the later years of its life, when return on investment, based on a percentage of the rate base, becomes inconsequential. As this situation will no doubt ultimately arise here also, it would seem proper that due consideration should be given to this problem in setting initial rates of return. Otherwise, if a compensation based on service is ultimately to be suggested in lieu of a return on investment, the possibility of duplication or compensation will arise. In our opinion, if it is deemed expedient ultimately to afford a utility a compensation independent of a stated return on the investment, then the return on the investment in the earlier years might fairly be set at a rate less than that which would otherwise be fixed.

It is also to be noted that the capital to be provided is entirely on the basis of common stock at a uniform rate of return. In this regard it is interesting to observe that of 53 public utility balance sheet published in the 1944 Financial Post, Survey of Corporal Securities, published by Maclean Publishing Company Limited, 49 reflect funded debt

and only 4 do not; of these 4, 2 have differential classes of stock and the remaining two have resorted to substantial bank borrowings.

That paragraph, Sir, has a bearing on two points. One, the comparison of rates of return for these two companies on what might appear to be a comparable rate in another company, which would not be comparable for the reason there was more than one class of stock outstanding. The other point on which this has a bearing is the incidence of Income Tax, when it is realized that if Income Tax is to be allowed in full to the utility company, the fact that the capital has afforded solely by common stock increases the cost of Income Tax, as compared with what the cost would have been if part of the capital had been provided by funded debt.

Apart from the foregoing qualifications, the utility is entitled in its return on investment to:

(a) Interest at a riskless rate which we have assumed to be not more than 3%, the approximate yield on Dominion bonds, and

(b) A premium for the risk assumed, expressed in terms or percentage of the amount of investment at risk from time to time. Two risks are here involved - first, the loss of capital, and second, the failure to earn the fair rate of return. In the main, both risks arise from the same physical and economic hazards.

To determine what premium should be paid for the assumption of risk, it would seem necessary first to consider what are the chances of the enterprise lasting out its presently expected life, and what capital loss would fall

upon the utility company if the investment had to be abandoned at any particular point in its estimated life. With this in mind we have prepared Statements W-H-26 to W-H-30 relating to Madison, and Statements W-H-32 to W-H-36 relating to British American, to demonstrate the risk-bearing compensation inherent in certain rates of return. Statement W-H-26 for example, is based on the rate of return suggested by Madison, and shows:

(1) The effect of annual depreciation upon a hypothetical rate base.

(2) The declining gross return thereon and the apportionment of this gross return between pure interest and the risk element.

(3) The effect of accumulating the risk return portion of the investment return in a sinking fund,

and finally

(4) A comparison of the declining rate base with the ascending sinking fund to show the amount of the net investment from year to year which has not been returned to the company either by way of depreciation or excess (risk) return.

I think, Sir, we might look at that statement and say a word to two about it. I refer now to Statement W-H- 26. I think that this will indicate the principles that we are trying to demonstrate here. The first four columns represent the hypothetical rate base, which you will observe commences at January 1st, 1944, at $2,553,000.00 and we assume additions would be made, as shown in the second column for the years '44 through '48, after which no additions were expected, and for convenience and calculation we applied a flat depreciation amount of $132,000.00, which would be sufficient to provide

$3,300,000.00 at the end of 1968, which would retire the opening rate base of 2 million-five plus the additions. The fourth column shows the descending rate base which hits a high point at December 31st, 1944, of $2,798,000.00, and then, of course, through the force of throughput the rate base falls gradually until it ultimately expires in 1968. The next column to that refers or represents what the return on investments would be on that descending rate base, at the 15-5/6% rate, which would amount to $404,000.00 for the year '44, and as the rate base goes down and the return goes down, in the last year for the use of the same plant, apart from depreciation, it goes down to $20,000.00 as compared with $400,000.00 in the first year. The next column represents the amount of gross return which is computed as pure interest. Or in other words, it is 3% on the descending rate base, and we are assuming that that return would be fair if there was absolutely no risk involved in the undertaking.

The next column shows the remainder of 12-5/6% after setting aside the 3% interest, and this 12-5/6% we suggest on this basis does represent the additional compensation paid for the assumption of the risk. That, of course, is subject to Income Tax, and we have, therefore, reduced it by the 40% tax rate, and that gives you an amount of one hundred and ninety-six thousand for your risk. At the bottom of the page you will note that the total gross return amounted to six million-five, of which one million-two would be pure interest at 3%, or excess of $5,292,000.00 to reduce to a net less tax paid basis, that would amount to $3,175,000.00. And that, of course, is in addition to the return to the proprietors of the depreciation represented by the third column, so that they would get a further amount of $3,300,000.00, being their

capital return to them.

The next section of the statement is designed to indicate what would happen if out of the annual return received by the proprietors they paid out as income the pure interest of 3% to funded excess return that they had received, or the risk portion of it, less the taxes they had to pay on it, in a sinking fund and permit that to accumulate over the years. There is a heading there, "Sinking Fund Accumulation of Risk Return" which shows under four columns, and the first column shows the balance that would be in the sinking fund from year to year. The next column shows the increment by way of interest at 1.8%, that is, 3% pure interest less tax of 40%, which would have to be paid on the earning of the fund. The next column shows the Deposit of the Excess Risk Return, which is the same column as that fourth previous to that. And the final column shows the balance in the fund that would accumulate over the years.,

At December 31st, 1968, assuming that the undertaking reached maturity without loss, the shareholders of the utility company would have gotten back their full depreciation, or, in other words, their capital back. They would have received each year 3% interest on their money less the tax which they would have to pay on that in any event, and besides that there would be available at that time a further sum of $4,227,000.00.

That, of course, assumes that there is actually no loss in capital. The final column is designed to show the net position of the proprietors in the event that the undertaking collapses at any particular time. If the undertaking were to fail at the end of 1944, the proprietors would

lose $2,600,000.00, but every passing year, of course, reduces the loss until you get to the year 1953, and from that time they are out of the woods. In other words, they have received in the early years by way of compensation on the risk, that from there on the amount that they would have in a sinking fund, if they maintained a sinking fund, that would more than offset the loss that would be sustained by the abandonment of the property.

Now from statement W-H-25, pardon me, W-H-27 is an identical compilation to W-H-26 excepting that the rate employed is 15% or equivalent to 9% after taxes. Statement 28 utilizes the 13-1/3% rate or 8% after taxes. Statement 29 uses 11-2/3% or a net of 7%. Statement 30 utilizes 10% gross or net 6% rate. And the effect of all of those variations is summarized in Statement W-H-25.

In every case the investment is the same and the rate of depreciation is the same. And than in the next column we show the assumed rate of return on which the calculations in each statement are based, then we show the total compensation for risk over above calculation and pure interest, assuming no loss of interest or capital occurs during the 25-year life. And at the lowest rate on which the calculation was made, of a gross return of 10% the total compensation for risk bearing over and above depreciation and pure interest would be two million-three; at the highest rate on which the calculation was worked out of 15-5-6%, the total compensation would amount to $4,227,000.00.

In the final column we show the approximate point at which the investment could be written off without uncompensated for losses, that is, in terms of years, assuming a 25 year life. On the 10% rate the investment could be abandoned without loss at 13½ years. By that time there

would have been sufficient received by the proprietors in excess return.to enable them to abandon the diminished rate base without loss. And that period of time shortens with every increase, of course, in rate of return.

In Statements 32 to 36 we present another and similar demonstration more closely associated with the facts of the British American situation, and summarized the effect to the various rates of return which are worked out on this basis in Statement W-H-31, showing that with an investment of $837,500.00 the total compensation for risk bearing varied over a ten-year life, and this compensation being in addition to the depreciation, and pure interest,would be for 10 years $202,000.00, at the shown present rate, or $371,000.00 at the 15-5/6 rate. That is, assuming the 10% rate on investment could be abandoned approximately 7-2/3 years through its life, and on the highest percentage of return at 6-1/5 years.

(Go to page 4756 ~~4786~~).

A Now turning to page 21, for the sake of the record I will read you the remainder.

MR. HARVIE: Did you say page 21?

A Yes.

Using a hypothetical rate base at January 1, 1944 of $2,553,000 and assuming for simplicity a constant rate of throughput for twenty-five years, the 15 5/6% rate suggested by Madison would return, in addition to depreciation, a total of $6,530,000. Of this, $1,237,000 would represent interest at 3% and $5,293,000 would represent additional interest allowed as the premium for risk-bearing over the twenty-five year period. If the amounts so received for risk-bearing, less tax at 40%, were deposited in a self-insurance sinking fund, they would accumulate to $4,227,000 at the end of twenty-five years. This amount would be a clear gain to the company over and above the recovery of depreciation and interest on the investment from year to year at 3%. It is recognized of course that there is a very real risk that the undertaking would have to be abandoned before that time, and in the final column of the statement we have indicated the net loss to the company at the end of any year if the business failed to survive for ten years, and the cumulative net gain to the company at the end of any year if it survived beyond that point.

Statements WH 27 to WH 30, contain similar demonstrations at rates equivalent to 9,8,7 and 6% after tax, and the results of all these computations are summarized on Statement WH 25. Similar computations are submitted with regard to British American in Statements WH 32 to WH 36, summarized on Statement WH 31.

Annual return on investment in the above mentioned statements have for sake of convenience, been calculated on the investment at the beginning of each year. Actually we are of the opinion that return should be calculated on the average investment for the year - i.e. opening rate base plus one-half year's additions less one-half year's depreciation. This incidentally is the formula employed in the Madison submission M 9. The British American formula (B.A. Volume 3, Page 4) is to apply the rate to the opening investment in each year, which on a declining rate base gives an actual yield somewhat higher than the Madison formula which we believe to be more appropriate. Later British American submissions conformed to the treatment we recommended.

Our calculations respecting costs and resulting service rates have presumed the rate on working capital to be the same as that for fixed capital. In this connection, however, it might be suggested that the return on working capital might reasonably be fixed at a rate less than that for fixed capital, for the reason that the risk involved in its employment is not so serious.

We are of the opinion, however, that rather than introduce differential rates, this argument to the extent that it has merit, might be given weight in arriving at:

1) The <u>amount</u> of working capital to be allowed.

2) The over-all rate to be allowed.

THE COURT: Have you anything arising out ot that, Mr. Blanchard?

MR. BLANCHARD: I have nothing at the present to ask.

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. CHAMBERS.

Q Mr. Hamilton, the usual or common method of most companies, or even persons in business, is to compute and provide for depreciation on what is known as the straight-line method, is it not?

A Yes. That is, one of the commonest in practice.

Q And by the straight-line method, as I understand it, we mean the provision for equal annual contribution to the reserve on the basis of an over-all predetermined period.

A Providing there are no additions.

Q Yes, leaving aside the question of additions.

A Yes.

Q Income Tax authorities in this country have recognized the straight line method as the usual one for the purpose of computing taxable income under the Act.

A It is one of the commonest used.

Q I think you have already told us, and is this not so, that the Income Tax authorities have issued regulations or made rulings setting up the minimum predetermined period for specific and different kinds of assets?

A Yes, sir.

Q As regards the Madison property, leaving out residential buildings, Mr. Hamilton, and automotive equipment and office furniture, the Income Tax rulings would permit an allowance, as I understand it, on a uniform predetermined period of ten or more years, is that not substantially correct?

A Yes, sir.

Q Now the annual contribution or addition made by any company to its depreciation reserves should, I suggest, come from

or be provided by its gross income for the year.

A Yes, sir.

Q In other words, that every article or service sold by a company should, through the sale price of its product, fill its proportion of the year's depreciation contribution.

A Not necessarily, sir.

Q Well will you explain to me why you will not agree with that statement?

A If they are equally susceptible to the charge, yes, but there may be cases where you have one volume of business of a character where each transaction is equal with the other transaction, in which case you would do that but there might be conditions under which you might have a premium on one or other of different kinds of transactions.

Q And in determining the amount of the sale price of its products, a company must, or probably I should say "should", take into consideration depreciation as one of its elements of costs?

A Yes.

Q Now taking the Madison operation, the only revenue to be received by Madison, I suggest to you, is to be realized from first, its sales of scrubbed gas, you agree with that?

A Yes.

Q Its sales of electricity and steam?

A Yes, sir.

Q And the charge to the Absorption Plant for transporting wet gas to it?

A Yes, sir.

Q That would be one item and depending on what the Board does, whether anybody else pays for any of the services, those

would be the sources of revenue?

A Did you mention repressuring?

Q I said "depending on what the Board does" as to charges to various parties for those services.

A You did not mention repressuring. That is why I mentioned it.

Q No. Those would be the sources of Madison's income?

A Yes.

Q And so far as simplicity is concerned, and I am referring to accounting purely and simply, the straight-line method of depreciation for Madison, of course, would be the simplest?

A Yes.

Q And that method would give the desired end result of providing the required reserve at the end of the period?

A Yes, sir.

Q But as I understand it, if the straight line method were used in the case of Madison, it would mean an equalized annual charge irrespective of increase or decrease in the yearly revenue?

A Yes, sir.

Q Is that right?

A Yes, sir.

Q And in order to overcome that feature, Madison, as I understand it, in Exhibits 79 and 80, that is M-9 and M-10, adopted a yearly depreciation charge calculated on the unit method?

A Yes, sir.

Q And the Madison method or the unit method itself, as I understand it, is a refinement of the straight-line method?

A Yes, sir.

Q And gives the result that the charge for depreciation is uniform for each, in our case, thousand cubic feet of gas

marketed, apart from variations through capital additions, that is the Madison suggestion?

A Yes, sir.

Q Now I think in Exhibit 55, which was M-4, and I think in your Exhibit 124 - no, Exhibit 55 and Exhibit 80, perhaps you can recall this without me turning the Exhibit up. I suggest they show that the estimated market will be greater during the first five years of operaion ?

A The first two years, I think.

Q Yes, but what I am getting at is the five-year period. The first five-year period will be the largest of any of the five-year periods, successive five-year periods. Do you recall that?

A Yes, I think so.

Q If that be so, Madison's suggested method will,I put to you, mean that the charge for depreciation during that peak period will be at the maximum?

A The maximum per year, yes.

Q And that in turn will have the effect of rapidly decreasing the rate base in the early years than on the straight-line method applied to the service life of the assets?

A Yes.

Q And that reduction in the rate base would also affect a corresponding reduction or saving in the over-all return?

A Yes, sir. It tends to eliminate risk.

Q Have you Exhibit 80 with you, M-10?

A Yes.

Q Now Exhibit 80, which is Madison Report M-10, entitled "Depreciation Method of Computing and the Rate Thereof.", deals with and discusses two alternative methods of applying

the unit calculation to depreciation, that is right is it not?

A Yes.

Q And method A which appears on page 3 of Exhibit 80, as I understand it, presupposes the application of the unit theory of depreciation to certain classifications of assets according to function.

A Yes, sir.

Q And the various classes of assets are set forth on page 3?

A Yes, sir.

Q Exhibit 80, as I understand it, that same method A entails the estimating of several different gas reserves which are applicable to these respective classifications.

A Yes, sir.

Q You know, I take it, that the matter of estimating the total field reserves has already occupied a considerable amount of time before this Board?

A Yes, sir.

Q And in order now to apply intelligently method A shown in Exhibit 80, would not further petroleum engineering evidence be required to allocate the reserves to each of those classifications?

A I should not think so. I would imagine between the Board and the representatives of the company some satisfactory method could be arrived at. If the Board laid down the principle on which depreciation should be calculated then perhaps the company could be given certain latitude as to how they should do that.

Q You do not agree that the Board should have engineering advice as to what reserves are attributable to each of these classes of function?

A It would be helpful, yes.

Q If you do not proceed on that basis would it not have to be more or less arbitrary?

A I think it will be arbitrary in any event.

THE CHAIRMAN: Do you mean advice or evidence, Mr. Chambers?

MR. CHAMBERS: Advice, unless we call evidence of petroleum engineers to give their reasons and the why and wherefore that they say there is so many reserves attributable to that particular piece of equipment. Unless we proceed on that basis it would have to be an arbitrary allocation, do you agree?

A It will be arbitrary anyway, sir.

Q What will be arbitrary?

A Your depreciation.

Q How?

A It is a matter of estimating.

THE CHAIRMAN: The allocation of it would be arbitrary.

A Yes, sir.

Q MR. CHAMBERS: The allocation of it to the various pieces of equipment.

A No, to the various functional costs.

In other words it is going to be arbitrary in any event. That is inescapable, because you are dealing with unknowns. You do not know how much gas there is there actually and you do not know how much gas is going to be sold. You do not know for sure whether the investment will last its present expectancy and consequently all you can do with respect to depreciation is provide something for it.

Q Well, the whole thing stems from the estimate first of all

of the total reserves.

A Yes, sir.

Q And that is the only reason we needed, probably, the evidence of the engineers primarily for the depreciation, was it not?

A Not the only reason. I can think of a number of reasons why we needed it.

Q Do you say that is arbitrary, is that right?

A I say that any provision we make with respect to depreciation is bound to be arbitrary. It may be very carefully thought out but it is still arbitrary when you are through.

Q You will agree they are all guesses anyway.

A That is right. They are more than guesses. There are inherent elements of arbitrariness to them.

Q What I am putting to you is this, if you are going to make a guess or going to make an arbitrary allocation, would it not be the prudent thing to do to have the evidence of engineers who are skilled in that kind of thing?

A It would be helpful but I think you could get along without it if you had to.

(Go to page 4765)

Q Do you suggest you could get along without it in connection with the overall ?

A I am not making any such suggestion, no sir, but I am saying with regard to this particular refinement, if you had the evidence it would be very helpful but you can get closer I think to your objective of providing depreciation equitably by endeavouring to take into account these other factors, than if you ignore them.

Q But as I understand the Madison "A" plan, it was that the unit method of depreciation would be applied to the particular classifications on the basis of the reserves it was to serve ?

A Yes.

Q Now I suggest to you that if you are going to proceed on that basis in order to get as near as possible the amount of gas to be served and by that the classification, and it is to be depreciated on that basis, you should, in order for it to be of value, you should make as intelligent an allocation of reserves as possible ?

A Oh yes, sir.

THE CHAIRMAN: And who is the best person to do that Mr. Chambers ?

MR. CHAMBERS: I suppose at the moment, and which suggests itself to me, is that the men we had here in the first place.

THE CHAIRMAN: I am just wondering if depreciation is allowed on a certain basis, if the rest of it is not a matter entirely of economics for the company ?

MR. CHAMBERS: Madison "A" plan which I am discussing with Mr. Hamilton is not the one that was suggested by us. I am just discussing it to get the distinction between it and the

one he argued about.

WITNESS: I would say, sir, that even the most eminent Geologist could not solve all the problems which would be required to be solved, to apply the particular plan I have in mind because the rate at which the market will take gas for example has an effect on the amount of gas which is to be re-pressured and my own thought in the matter was that the Board, at some stage, would lay down a policy, a formula, for applying the depreciation to the different assets and would leave it up to the company to work out a scheme which would be satisfactory, possibly in consultation with the Board's auditors, just in the same way you would not expect the Board to have an Utility Company bring to it estimates of stationery costs and things of that kind, it is assumed you will do the prudent and the proper thing.

Q MR. CHAMBERS: No, but as I understand it one of the reasons that you are suggesting either Madison "A" or something like it, is that it may have different consequences to different people ?

A Yes.

Q Now if you are going to base charges on this allocation of depreciation on the basis of reserves, you are surely not going to leave it to the Utility Company to do that ?

A Within broad limits I think that would be in order. They do not stand to gain or lose by particular allocations. You would expect them to do the reasonable and proper and honest thing, subject of course to review by the Board and to the complaint of any party who is aggrieved.

Q Well now if it is subject to review by the Board you do not suggest that an Utility Company should take the responsbility

for it, do you, I mean would the Utility Company be held accountable for what the Board might subsequently consider to be an improper allocation ?

A Well I think, sir, with all due respect, as to that, Utility Companies do that at all times.

Q For the purpose of arriving at the amount to be charged to, or which it will make to a certain class of its customers ?

A I would think so, sir, yes. Depreciation is just one element in cost in regard to which all costs must be arbitrary to a certain extent.

Q But is it not so that it may be an appreciable item of costs to certain parties availing themselves of the services if the reserves attributable to a particular asset are larger or smaller ?

A That is right.

Q And you still think that is best for the Company to do that ?

A Subject to review by the Board, yes.

Q You think that it should be left to the Company ?

A As I say subject to review by the Board.

Q Assuming that the Board disagrees with the Company's allocation, would you go so far as to suggest it should be held to account ?

A I do not know where we are now. There are legal principles involved but I can appreciate the overall situation.

Q Well in any case I think you have answered this already, the amount of the reserves can be regarded as nothing more than a temporary or current estimate which will likely be subject to adjustment in the light of the experiences of this Company, would you agree with that ?

A Yes.

Q And further is it not likely that assets now in the various

classifications, on Page 3 of Exhibit 80, will be or may be transferred from one group of classifications to another group as time goes on ?

A That is quite possible.

Q Just for instance take that residue gas gathering line that served the G. O. R. gas, and there is a compressor down there, as I understand the evidence, it is probable or possible that in ten years or thereabouts, that equipment may be dismantled ?

A Yes.

Q And you deal with it ?

A Yes, or not used, or used.

Q I think, do you recall the evidence ?

A That the likelihood was that it would be.

Q That there would be other places where it would be used ?

A Yes.

Q Now if the G. O. R. compressor and the line are fully depreciated on the basis of the G. O. R. gas handled, when that same equipment is used in another place it would be subject to no further depreciation ?

A If it was fully written off, yes.

Q Now is it your idea that it should be written off ?

A No sir.

Q To the G. O. R. gas ?

A No sir. My thought in the matter would be that if you could predict that at the end of ten years the G. O. R. transmission line had to be moved elsewhere and utilized in some other phase of the company's operations, you would estimate now what the value of that line would be in place, taking into account that you would have to move it and move it to some other

location, you could predict the scrap value of that while it is in place and performing the functions of removing residue gas for G. O. R., you would write off the full cost less the salvage anticipated at the time the line is to be moved; in other words the G. O. R. function pays for that part of the value of the equipment which is utilized for that function.

Q Now take a compressor or compressors and assume that the evidence, assume that they will be required to do a substantial amount of work in another part of the field after the G. O. R. is all handled ?

A Yes.

Q How would you suggest that we deal with that as regards the G. O. R. gas ?

A I would think, sir, that the proper course and the ideal course to pursue would be to determine the total number of cubic feet of gas which would be handled by the compressors, regardless of its location, and to depreciate on that basis.

Q Yes, but I think you will appreciate that that would be almost impossible ?

A Oh quite, sir.

Q Yes.

A But the tendency can be demonstrated by that line of reasoning, to appreciate what the ideal thing to do would be. And if that is so then I think a practical course would then present itself.

Q What I am getting at is this and that is the reason I am bringing this matter up for discussion, - we hope that within the next few months at least the Chairman of the Board will be called upon to decide just what is necessary to be set up for depreciation, - now as I understand it, the Madison "A" scheme

discussed in Exhibit 80 and the one which you suggest in Exhibit 124, involves a special rate of depreciation of the assets serving and handling the G. O. R. gas ?

A Yes.

Q Now how specifically do you suggest that the Board can apply that suggestion in the light of the evidence that the compressor or the compressors serving the G. O. R. gas will be, likely will be used to handle substantial quantities of gas ?

A I think the solution to that problem, sir, is to estimate the time at which the transfer will be made and what the probable scrap value would be at that time and then to depreciate the difference between the cost and the estimated salvage on a throughput basis of the amount of gas which is expected to move through the line in its present location.

Q And if those compressors are moved to another part of the field and perchance handled far more gas than the G. O. R. gas, they would only carry a return on the amount that was allowed for salvage ?

A Yes. I think that as a matter of practicability the G. O. R. function must absorb the cost of the facilities that went in for the movement of that gas less the value of the equipment at the time it is moved some place else, I mean if an item went in which cost a thousand dollars and only had a scrap value of one hundred dollars at the end of ten years you must write off the nine hundred dollars against that function because that function has received, prudently or imprudently, the value of nine hundred dollars.

Q Assuming that the compressor, when it is through handling the G. O. R. gas, can be moved and it is capable of handling far more gas than it did from the G. O. R. ?

A That is right.

Q And assuming that it is going to handle far more gas ?

A All right.

Q Do you suggest that it should be depreciated, except for the salvage value - -

A When I speak of "salvage" I mean the value applied to it at that time, having in mind what you can still do with the equipment and what it costs you to move it and so forth.

Q Well would you admit, as I understand it, that it would be almost impossible now to apply to that particular compressor any intelligent estimate of the total future amount of gas that it is going to compress ?

A I would not go that far. I would think an intelligent estimate could be made.

Q How do you suggest it could be made ?

A Well of course I am not sufficiently familiar with the nature of the operations in the field to tell you how to do it but I am sure, I am pretty sure if you ask your Company's officials they can give you some estimate. It might be very wide of the mark in the long run but I think it is better to endeavour to forecast than to refuse to forecast.

Q You say even though it might be wide of the mark yet it would be an intelligent estimate ?

A An intelligent estimate and still better than refusing to recognize the possibility of it happening. You see I might perhaps add this qualification, sir, the whole tendency of our appraisal with respect to depreciation and that recommended by the Madison in their "A" plan has the effect generally speaking of accelerating depreciation, of providing for it a little faster than it would otherwise be provided for and I

think it could be justified, apart altogether from the grounds of equity, on the grounds of services and has the effect of returning the rate base to the Company more rapidly and therefore reduces its risk and therefore reduces the rate of return and it does it within the bounds of propriety too.

Q The Madison Company did not recommend the "A" plan ?

A Oh no.

Q Now Mr. Hamilton I suggest to you that the depreciation on that particular equipment solely on the basis of the G. O. R. gas if it is to be again operated, would be unfair to both the consumer and to the utility ?

A Not if you provide for an appropriate amount for salvage.

Q But at this stage of the proceedings how are you going to arrive at the amount of salvage, that is the part I cannot understand ?

A I think you can estimate but anyway your estimate of it brings you closer to the truth than to ignore it because the function is all one operation and if you move one foot along that line you are one foot closer to the truth.

Q Well assuming that that equipment will be used and useful somewhere in that field throughout its entire life, do you not think it would be just as well, in fairness to all parties, for you to depreciate on the basis of the overall reserves ?

A No sir.

THE CHAIRMAN: We will adjourn now.

(A short adjournment was here taken )

( Go to Page 4773 )

Q Mr. Hamilton, at Madison #1 Compressor Station there are compressors which serve a dual purpose during the year ?

A Yes sir.

Q First, for boosting gas for delivery to the Gas Company, and then at certain times of the year compressing dry gas for storage. That is so, is it not ?

A Yes sir.

Q Now you would I take it agree that it would be impracticable to apply your basis that we have been discussing to that situation ?

A Difficult but not impossible.

Q I suggest that it is impracticable ?

A No sir.

Q How would you deal with that situation ?

A Compute the total volume of gas that is to be compressed of the two types, taking into account any engineering factors, such as relative pressures required for the two types of volume and arrive at a weighted unit depreciation rate per Mcf compressed.

Q That would still be an estimate that would be subject to change as time goes on ?

A Yes sir.

Q From the evidence I suggest to you that the design and the use of various types or classes of the Madison system cannot be regarded as static or permanent in their present situation and functionally for the next twenty-five or thirty years ?

A I would assume that to be so.

Q In other words some of these items of equipment in one classification will in all probability be changed over to another classification as time goes on ?

A Quite likely.

Q And the use and changes will I suggest be governed by matters and circumstances over which neither the Board, Madison, consumers or the accounting people have any control ?

A That is correct.

Q Now then turn back to Exhibit 80.

A If I might add in response to that last question you might apply that same thought to a great many other elements of cost besides depreciation.

Q Oh yes.

A Practically all elements of cost.

Q Back in Exhibit 80, which is M-10, Page 10, there is a discussion of the alternative method "B". Now it is method "B" that is outlined in Exhibit 80 that is recommended by Madison and used by Madison in compiling its Exhibit 79. That is right is it not ?

A Yes sir.

Q And that method "B" suggests as I understand it that all of Madison's assets having life as long as the field be depreciated on the same overall formula ?

A And perhaps some assets that won't last the field too.

Q Which ones are they ?

A I am speaking for example with regard to the residue transmission for G. O. R. gas.

Q That certainly won't be used in the present situation for the entire life of the field ?

A That is true.

Q Now shortly put as I understand it, the formula in this method "B" which is recommended by Madison is a fraction whose numerator would be the years scrubbed gas sales, and whose denominator is the total estimated sales of scrubbed gas over the life

of the field ?

A Yes sir.

Q In any event, I take it that aside from the intrinsic merits of the two systems you admit that "B" would be simpler in its application in accounting ?

A Oh simpler, yes sir.

Q And also I suggest is not complicated in that it does not require involved adjustments to be made every year after an item of equipment is moved from one classification to another.

A That does not to me present any particular problem. It is a complication, but it is no great problem.

Q But it certainly means would it not, readjustment of the depreciation set up at the time that is done ?

A Oh yes sir. What I am getting at, sir, is that the Company officials now go to a great deal of time and trouble and a certain amount of expense in making rather complicated problems and distribution of elements of cost, other than depreciation and then it is suggested with regard to depreciation, let us be rough and ready about this. That is my reaction to it, sir.

Q Now then the Valley Pipe Line depreciation is as I understand it computed on the one overall basis ?

A Yes sir. The situation there is quite different and is taken into account.

Q In what way ?

A As I understand it, the Valley Pipe Line is solely a transportation system and it moves fluid from one point to another. Whereas, the Madison operation involves the transportation of market gas. It involves the repressuring of non-market gas, and the transportation of that gas to be repressured. Also, it provides a service to the absorption plant in the carrying

of that part of wet gas which goes to the absorption plant. In other words you have a number of possible beneficiaries of different types of service. Whereas in the Valley Pipe Line in my appreciation of the circumstances, it is that there is generally speaking one class of beneficiary.

Q Would you turn now to Pages 28 and 29 of Volume 2 of your Exhibit 124, where as I understand you, you state in effect that the Madison method, that is the "B" method, should not be adopted for the reasons that you set forth and the first reason you set forth is that the future capital additions should not be ignored. That is one item of difference between you and the Madison is it not in the "B" plan ?

A Yes sir.

Q In other words you suggest and recommend in effect there that in this year 1945, Madison's income from the rate now charged should provide in part for the retirement of the cost of equipment that may be bought and installed some years hence. Is that right ?

A From the practical viewpoint, yes.

Q In other words as I understand the effect of that is this, that the consumers of 1945, and by consumers I mean any persons paying for the service, should through present rates contribute a rateable proportion of the cost of something which it is anticipated might be installed in say 1952.

A No sir.

Q 1950 ?

A No sir. I think that the essential difference between the two different proportions is that I should have made a reservation on my previous answer. Theoretically the effect is quite different. Perhaps I might illustrate it in this way. Supposing

for the sake of argument the Madison facilities have a present value of one million and a half and let us suppose that with the provision of a further half million, the Company, with the original million and a half plus the further sum of half a million, will be able to transport so many billion feet. Now I do not think that you can depreciate the cost of the existing facilities by the volume of gas which those facilities will carry, you have to take into account the total investment that is required to carry all the gas - if you are going to take into account all the gas.

Q Is that not a refinement again of the unit method ?

A Yes sir.

Q And is it not the purpose of it now to amortize future capitalization ?

A That would have the effect of it, yes sir.

Q Well now, Mr. Hamilton, I suggest to you as a layman on these things that that proposition in essence amounts to the creation out of present day profits of a reserve for the making of future capitalization ?

A No sir.

Q Why am I wrong ?

A Because I think the difficulty is one of fully appreciating the significance of the unit method. The unit method predicated on a desire to charge each cubic foot of gas that is transported with an identical amount with respect to depreciation. That result can only be obtained if you incorporate into the amount to be depreciated, not only that which you have already expended in capital assets, but that which you may have already to expend, otherwise you get a rising rate of depreciation when your purpose was to get a constant rate of depreciation.

Q But is not one of the functions of a regulatory Board to even within reasonable limits, the charges to the consumers throughout the life of this operation ?

A Yes sir.

Q Now if capital additions have to be made later on, and if those new capitalizations are depreciated on the basis of the remaining amount of gas to be handled, that would mean of course that the ratesfrom then on carry that depreciation charge, does it not ?

A I am not quite clear sir as to what you are getting at.

Q Suppose we have a capitalization made in 1948 we will say, on the Madison "B" method, that capitalization addition say is $100,000.00, would have applied to it the remaining number of Mcf ?

A Yes sir.

Q Now that would mean that the parties paying the rates to Madison from that time on would in each Mcf pay an equal portion of that $100,000.00 depreciation, or $95,000.00 ?

A Per Mcf, yes.

Q And by the same token the Madison method means that the consumers from now to 1948 are not contributing any depreciation towards that particular item ?

A Madison's proposal involves that proposition, yes sir.

Q Now what I am suggesting to you is this, that while the consumers in the future of 1948, and on, are carrying that extra amount of depreciation, at the same time they have been relieved to a considerable extent with respect to depreciation by reason of the rate base having been reduced considerably in the meantime. Would that not be so ?

A No sir, at least not if I appreciate fully what your question

involves.

Q What I am getting at is this and I thought you had agreed with me in principle that one of the objectives of the Board is to keep the rates to consumers more or less on an even keel ?

A Yes sir.

Q What I am suggesting is that the Madison plan of depreciation is pointed in that direction ?

A Yes sir but the anticipation of future capital expenditures carry it a little further in that direction.

Q And then what I am putting to you is this, that by doing it on your method and anticipating actual capital additions, that you are throwing an undue portion of the load on the present day consumer, the man that is here from now to 1948 ?

A No sir.

Q Then will you...

A Perhaps this will help to clarify my course of answers. It depends to a very large degree on what is the effect of the future capital expenditures. If the future capital expenditure is required to be made to do the job which is now intended shall be done, then the capital expenditure should be anticipated in arriving at a depreciation rate. If, however, the future capital expenditure will lengthen the life of the field or improve the service over and above what is presently contemplated, then only future consumers should pay for that, but if that capital expenditure is part and parcel of the overall present plan, then an element of that future cost comprises part of the present cost.

Q As I understand it, we have evidence that the overall reserve will result in a certain improvement. That is the forecast we have now, and in the light of that the Madison Company says in

order to do that job we need the equipment that is there now and we figure that over the life of the field we have to make some capital expenditures and they are set forth in the Exhibits. Now as I understand your proposition you say that the consumer of today should through their rate contribute something towards the amortization of those future capital additions ?

A If those future capital additions are required to do the job which is presently contemplated to be done, yes.

Q And those are the ones I had in mind when I was discussing it.

A Yes sir.

Q And you say that those future capital additions should now be taken into account for the purpose of deciding the amount of the depreciation this year and next year. Am I right in that ?

A Yes sir.

Q Now Mr. Hamilton, I put to you this before and I will come back to it again. It occurs to me that you have really been collecting through your present rate some monies which in theory and in effect are reserves towards the making of future capital additions.

A No sir, it may appear to be so, but I say in theory that is not the case.

( Go to Page 4781 )

Q But you are not depreciating something you have not even yet built?

A No sir.

Q That is what you take into consideration?

A No, what we are endeavouring to do is to strike a unit rate which would amortize the total, eventually amortize the total expenditure.

Q Some of which may or may not have to be spent?

A Yes, that is right. The result is that you, during the earlier years, have a heavier depreciation.

Q And in your experience as a Chartered Accountant you would give it as your opinion that the Income Tax authorities would allow you to deduct something from your present-day operations, something that you would build in the future?

A I would think that if the Board made such a direction with regard to the matter, that the Commissioner of Income Tax would probably be in accord.

Q You think they would?

A In other words, if it was reasonable to the Board it would be satisfctory to them under the Income Tax regulations.

Q Now, doesn't Section 6 of the Income Tax Act specifically state that in computing taxable income, and I quote, "A deduction shall not be allowed in respect of" and then we come down to Item (d), "amount transferred or credited to a reserve, contingent account or sinking fund, except such an amount for bad debts as the Minister may allow, and accept as otherwise provided in this Act," and then we go down to (n), and we get, "Depreciation, except such amount as the Minister in his discretion may allow," and you think that this Board, if it set up the Income Tax depreciation, that the Income Tax Department would allow it, or let it go?

A I would say, to make it clear, that it would in the estimated capital expenditure in the future, but not without making any reserve of any kind.

Q That is, to depreciate the existing assets at a larger amount per MCF right now, for the purpose of arriving at that result, is that correct?

A Yes sir.

Q Do you think that the Income Tax authorities would not frown on that?

A They might frown on it, but I think they would accept it if properly explained to them.

Q And do you suggest that a company under regulation would be entitled to do the same thing?

A I do not know, but it seems to me that if the procedure were provided by this Board, it would go a long way toward eliminating any possible disallowance by the Department. I think, of course, whether the Income Tax authorities do or do not allow an item, that does not necessarily mean that that indicates the proper treatment.

Q And your suggestion then is that in order to cut down the return to the company the depreciation should be accelerated in the early years of the rate base?

A Not to cut down the return to the company. It would have that effect but that was not the reasons for my making the suggestion. I think it is a proper way to do it.

Q Whether under regulation or not?

A In a situation of this kind, yes, I would think so.

Q Why in a situation of this kind, and not under some other situation?

A Because you have here a wasting asset, a field reserve predicated upon certain original capital investment, and future capital expenditures, which you recognize right now must be made.

Q And then do you suggest that this would be a proper procedure and sound for every company whose existence depended on a wasting asset?

A Not necessarily, no. I think you would have to examine the particular companies.

Q That procedure of providing for depreciation for future anticipated capital additions, is that a common practice?

A No sir.

Q In any event, Mr. Hamilton, I suggest to you that the method would involve still further uncertainty or unknown factors in computing the company's depreciation?

A That is correct, sir.

Q Because, one thing, we do not know what we are providing for, we do not know the circumstances?

A That is correct.

Q Which would also suggest, in fact, further complicated adjustments when the capital additions are actually made, and the actual costs compared with the present estimates?

A No sir.

Q Well, you are providing for it on an estimated basis?

A Yes sir.

Q But when you do come to make capital additions it may cost twice that?

A Oh quite. I see your point now. That is right.

Q Then turning again to Page 28 of Volume 2 of Exhibit 124, Mr. Hamilton, as I understand it you also differ with the Madison "B" method in regard to the salvage?

A Yes sir.

Q We discussed that matter of salvage to some extent last week, Mr. Hamilton?

A Yes sir.

Q Now just for the purposes of the record, as I understand it, for the purpose of computing the initial rate base of the Madison Company, as at December 31st, 1943, you originally allowed them 5% salvage, is that right?

A Yes sir, in some presentations, and in some not.

Q Now, is this right that in Exhibit 124, which was your recommendation, and W-H-6 of Exhibit 125, you recommended salvage in there for the purpose of computing accrued depreciation?

A I would like to check that point, Mr. Chambers. I have not got all my papers here. I could check that for you.

Q All right then, if you would, please, Mr.Hamilton.

A I do not feel as strongly now on that point as I did. I do not feel as strongly on that as when I wrote these comments with respect to depreciation.

Q Am I right in this, that in regard to depreciation you still recommend that a salvage deduction should be made for arriving at the base amount to be depreciated?

A As I say, I do not feel quite so strongly about salvage as I did.

Q I see?

A It depends too, Sir, on practical consideration, as to whether you adopt the Madison "B" basis or whether you apply some other basis, but the tendency, of course, is to accelerate depreciation by adopting the suggestion of ours as compared with the Madison "B", and that might overcome part of the problem with regard to salvage. Our tendency was to accelerate depreciation and the recognition of salvage tends to postpone it. And there has to be a reconciliation of those two factors.

Q Reverting back for a moment to the depreciated different

classes of assets on a different unit basis. Now, if as you suggest there should be a separate formula for each of these classifications according to function, just where are we going to stop in splitting these different classifications or these functions?

A It would be a matter of judgment, Sir, I would think, as in any other cost determination. It is a point where it finally comes in to be practical.

Q I am going to suggest if you are going to adopt that basis why not split the gas gathering lines into the North and the South?

A People would disagree on that. I think if we take the gathering lines together that we have gone far enough.

Q How about the high and low pressure systems?

A Quite right. Some people would say, "Let us split them up", but I fancy that the additional work would hardly make it worth while, for this reason, that the people who generally benefit from gathering, are particularly a group, and there is not the same purpose to be served in pursuing that breakdown as there is in the primary breakdown between, for example, repressuring, residue transmission and gathering.

Q If that basis is sound, and proper to be applied here, why should it not be applied to a building, Mr. Hamilton, where certain parts, are not going to last, like the roof, we will say, goes before the rest of the building. You do not usually provide for a different rate of depreciation for the roof, than you do for the rest of the building?

A Straight line rates are necessarily composite rates, and are necessarily high and low rates applied to component parts.

Q But there is no difference in that respect between the straight line and the unit?

A Beg pardon?

Q There is no difference between the straight line and the unit method in that respect between them?

A There is the point that the throughput method is predicated on the presumption or the assumption that your asset will last the field. How much longer it lasts after that is a purely academic question.

Q Well, what I am getting at is this, Mr. Hamilton, suppose we have a building that is used in this operation?

A Yes sir.

Q And it would be of no use at all after the operation is over, would you suggest on that that you would have a different rate of depreciation on the roof than on the other parts of the building?

A No sir, if they are going to last the life of the field.

Q But if the roof is going to last half of the life of the field, then you have to put a new one on?

A On that case it would be possible to anticipate that requirement and include it in your total depreciated amount.

Q But providing for the existing assets you would depreciate that roof that is there now on the basis of the first half?

A It depends what you are going to do with the expenditures for the second roof. Are you going to expense it or capitalize it. If you are going to capitalize it, I say you should recognize that fact now in relation with the total volume of gas that goes through as compared with the cost of one building, have the one building and two roofs.

Q Now, your method, which is the Madison "A", or substantially it?

A Yes, substantially Madison "A".

Q And the Madison "B" method, which is recommended by Madison, in the end it results in the same amount of depreciation being received by the owner of the asset, supposing it is worked out?

A Yes, and providing there is no collapse.

Q Yes?

A My method is slightly more conservative than theirs is in the event of something happening in the interim.

Q Now, on page 23, and following, of Volume 2, of Exhibit 124, you deal with rateable and non-rateable gas. Now, would you just tell us shortly, Mr. Hamilton, why you think it necessary to arrive at that distinction? I think you have here, but I wish you would tell us in a word or two?

A The question of determining the volume of rateable gas for a particular function in order that you may utilize the resulting unit cost as containing elements of service rates. If you fail to reach the determination as to what is rateable and what is not, you might find yourself in the situation where you had determined the scrubbing cost to be 2 cents on the assumption that every foot of gas to be scrubbed would pay 2 cents, but on the other hand, finding that only half of the gas to be scrubbed is going to be paid for, the operation then, of course, results in a loss, to the extent of your failure to recover the unit costs of the gas that you have paid for.

Q Now, the divisions that you have made in this section 4 of your Volume 2, and in the other parts that are relevant to this matter, you, I think, have told us, they are arbitrary as far as you are concerned?

A Quite, sir.

Q Now, if the Board should decide that it is necessary to make those divisions, would you just tell us now, you touched on it earlier, how you suggest that it should proceed to arrive at an allocation that is not arbitrary?

A Impossible, sir. It is bound to be arbitrary.

Q Let us put it this way: It would be less arbitrary than you

say because you do not pretend how it should be done?

A That is right. That is a matter of judgment very largely, and I am certain that engineering advice is probably more valuable than ours in that regard.

Q And there might very well be divisions of opinion, differences of opinion?

A Quite.

Q Especially between the people who are going to be affected by the way that the allocation is going to be made?

A Quite.

Q And that would apply to the allocation of the gas reserves, or the rateable and non-rateable gas, and to the various functions that you have mentioned?

A Yes sir.

Q On Page 23 of Volume 2, Exhibit 124, Mr. Hamilton?

A Yes sir.

Q Now, from Page 25 of the same Volume 2, and also I think it is W-H-40 in Volume 1?

A Yes sir.

Q I infer your view is that any gas to be scrubbed and to be stored in Bow Island should bear a portion of the total scrubbing plant costs?

A It would seem to me to be reasonable on the facts as I know them then and know them now.

Q That would be a portion of the operating expenses and of the capital charges, that is the depreciation and the return and the administration charges?

A Yes sir.

Q They are a portion of those things?

A Yes.

Q And your suggestion, or assumption, I guess is probably a fair way to put it, is that the Bow Island gas bear 50% of those unit costs?

A Yes sir. That is not a recommendation, it is merely an indication of the different calculation that is necessary.

(Go to page 4790)

Q That would be the result if you used the 50%?

A That is right. The only recommendation in that respect is it should be listed at more than nothing and less than 100%.

Q Who do you suggest should pay those costs, the Madison, in respect to Bow Island gas?

A The persons in whose behalf the gas is delivered to Bow Island, whoever they may be at that time.

Q The gas is going to Bow Island to serve markets in future. Are you suggesting here the consumers should now pay that cost or the Gas Company?

A No, sir. I believe the charge should be borne by the persons who have title to the gas, always provided it is an economic procedure.

Q Assuming that the person who has title to the gas is the utility company, the Gas Company for instance.

A Yes sir.

Q Have you in mind that the Gas Company should pay those charges, carry them as something apart from its rates?

A Not necessarily.

Q No. If they are included in the current rates to the Gas Company that, in effect, means that the consumers pay?

A That is right.

Q Then, as I understand it on page 25 of Volume II and on WH-41 of Volume I, you suggest that all storage gas, whether Bow Island or Turner Valley storage, should similarly bear 50% of the unit costs of gathering and relaying to the compressors?

A Yes, sir. Not 50% of the cost from the rate but 50% per m.c.f.

Q I am sorry, 50% of the unit cost?

A Yes.

Q Who do you suggest should pay those charges, Madison, or have you any thoughts on it?

A I think that is out of my province but I can see a possibility of the charge being directed against the producer or against the absorption plant or against the Canadian Western Company or against Royalite; or against the market.

Q Now you mentioned the absorption plant first. All gas going to the market requires to have the gasoline content removed, you will agree with that?

A Yes, sir.

Q And after that gasoline content is removed, the gas is then available for the market, is it not?

A Yes, sir.

Q And that gas, with the gasoline content removed, is no longer required by the absorption plant as a proposition?

A I am not altogether clear on that. I did understand under some circumstances that gas could be re-cycled and it comes to the absorption plant a second time.

Q The absorption plant is a plant for the extracting of gasoline and does not require dry gas for any purpose does it?

A It might, if my understanding is correct that some of that gas is re-cycled, it might not require it but it gets it again a second time.

Q I am talking now of the operation of the plant.

A Yes, sir.

Q I mean to operate an absorption plant you do not need dry gas do you?

A You need gas.

Q You need gas with gasoline in it.

A That is right.

Q You need wet gas. Are you suggesting that in order for the absorption plant to operate that it will have some use for dry gas?

A If the dry gas brings some hydro-carbons back in the second time through, I would say it needs dry gas as a transporting agent.

Q Now will you agree with this, that the absorption plant has no control over either the supply of the wet gas or the demand of the residue gas.

A I do not think I would go that far, sir. I think you are correct with regard to the second point, that they have no control over the residue.

Q What have you in mind when you infer the absorption plant has some control over the supply of wet gas? I am talking about the supply of wet gas to it.

A Yes, I can see a number of opportunities for the absorption plant to vary the rate of delivery to it of wet gas. It might finance the drilling of new wells or the closing down of old wells and so on.

Q There is no evidence of that here is there?

A I am just saying I can visualize that.

Q Oh I see. Is not the amount of gas that is required to be stored really dependent upon two things, first, the volume of production by crude well producers - I am talking of this particular situation - and (b) for the amount of market demand?

A Yes, sir.

Q Now as the absorption plant pays or is to pay for gathering and compressing its share of all gas retained by it, what

reason is there, I am asking you, for the absorption plant to pay any additional amount with respect to the storage of gas?

A Well I think it is a possible contributor for this reason, that they might compare the situation as it is expected to be and as it would be if an alternative solution had been found, namely to hold back production, then the absorption plant under the present set-up is better off than it would have been under the alternative situation. Consequently it seems to me possibly it should be a contributor to it because it is benefitting by it.

Q How is it better off under the present situation than if there had been an alternative one?

A Well it has handled the gas. It has had the extraction of the hydro-carbons as compared with the situation as it would be if alternative repressuring were to restrain production.

Q No, but the absorption plant will handle the gas when it comes, if, as and when it is produced.

A Maybe. Always provided it is still in business.

Q Well some absorption plant.

A Well maybe, sir, and then there is this that you are better off getting your production early than you are getting it late as a general rule because the investment is amortized that much faster and the risk is less. Besides which you get the benefit of the accelerated throughput and its effect on the cost.

Q But over as against that, if you have an absorption plant designed and built with sufficient capacity to handle the peak load demand of 90 or 80 million feet per day, that absorption plant, so far as the straight extraction of gasoline is concerned, could probably handle just as much

at a much lower rate but operating on an even load.

A I would assume so.

Q So assuming that is the case, would you not think that that is an offsetting item, either wholly or in part?

A I am sorry, I did not trace the connec tion. I do not want to avoid it.

Q I am not suggesting that. As I understand it, you have in effect said that the absorption plant should bear some or possibly should bear some of these other costs in respect of storage gas as it is being benefitted by this public utility set-up. What I am putting to you is that on the other side of the ledger this absorption plant has made a contribution to the difficulties under regulations in that . . . . . difficulties of supplying the market, put it that way, in that it has spent money solely for the purpose of dealing with a peak load situation. Do you follow me?

A Oh I see, yes. That might be an offset under those circumstances.

Q Now then let us canvas one or two of the other parties that might conceivably be asked to or should pay this 50% of the unit cost in respect of the stored gas. Now you would agree with this proposition, I take it, that when that storage gas is required for the market and is actually made available to the market that the party who has expended the money on it should be reimbursed?

A I will assume that. I do not necessarily agree with it.

Q Well if you do not agree, I am asking you why you would not agree.

A Well it may be residue gas is on the order of garbage, something that has to be put some place and the cost of putting

it there does not give it a value equivalent to the cost of keeping it.

Q You are suggesting that parties may be required to put out money to take care of this stored gas for which they are not to be fully reimbursed.

A It is possible, yes.

Q Well, aside from whether the Act covers that situation or not, do I understand you to say that you thought that they should or might be, under these plans, putting up money that they are not to be fully reimbursed for?

A I say it is possible. I am not recommending that that should be the case. You put it to me as a general proposition, a "yes" or "no" proposition.

Q Yes, well I am suggesting to you, Mr. Hamilton, that a sense of fairness, leaving out technicalities, involves that the party who is required to put up the money to pay for certain services under regulation should, under the plan that is set up, be reimbursed, not only for the money that he actually lays out but also for a return on that money while he has it laid out.

A In the sense that Madison is the Company that is laying out the money, I quite agree with your proposition, yes.

Q I know but why treat Madison differently from any other party?

A Well I believe Madison is entitled to recover its original investment and its rate of return in addition to its operating costs. It may be, however, that the Board will direct some class of beneficiary to pay so much for the performance of that service by Madison for good and sufficient reason.

Q What I am getting at is we have dealt with Madison, which is a utility.

A It gets its money back, I agree with that.

Q Now we take the party that pays the money to Madison. Let us take the well owner or the producer, and he is required, by Order of the Board, to deal with his gas in a certain way.

A That is correct.

Q And we will say that he is required to not only deal with his gas in a certain way but he is required to pay, either directly or by offsetting accounts, a certain amount to Madison for taking care of his gas, storing it or looking after it. Now why should not that producer be entitled to a return on the money that he puts up just the same as Madison or anybody else?

A He might be entitled to it and still might not be able to get it. The word "entitled" . . . . .

Q Are you suggesting that the Board, in setting up a plan, should impose that obligation on that person and that plan could not envisage him getting it back?

A It is conceivable.

Q Do you think that would be fair?

A I am not admitting . . . . Perhaps I admitted too hastily a few minutes ago that there is only one way in which this gas could be dealt with. There might have been alternatives which were canvassed at the time. Another alternative such as withholding production might have been acceptable to this or any other Board, in which these costs might have been avoided and it seems to me possibly that the Board will say that the people who caused these costs to be incurred are to be the people to pay for them whether they can recoup them later on or not.

Q Now as I take it from your WH 46, 50 and 52 - I am not going into the figures in detail - that taking the Madison basis of compressing,gathering and repressuring, that comes to 5.91 cents, I think, from your 50 and 52. And 50% of that amounts to 2.955 cents, or let us say roughly 3 cents. Now assuming that the producer pays for producing it and he does not get his money back for 15 years, assuming he gets 8% return compounded of course, it goes up about three times. Would that sound roughly correct, 8% 15 years.

A It would be on that order.

Q I am not putting this to you to try and get you to agree with me but to illustrate what I have in mind for the purposes of our discussion. That if you take the 3 cents charge now, and we will say it is not to he recoverdd for 15 years, we will assume the gas will be marketed at the end of 15 years, you are going to have roughly 9%?

A No, sir, I do not go that far.

Q I was assuming that procedure were adopted.

A No, I do not agree with your premise. I say this, it may be argued that the producer is getting paid for his gas right now in the sense he has 1000 cubic feet of gas coming from his well, as a residue basis and he can sell 800 feet to the market and 200 feet that has got to be disposed of. Now provided he gets more for the 800 feet that he sells than it costs him to dispose of the 200 that he must dispose of, he has been paid for his 1000 feet of gas.

Q Would it not be better if he gave it away than spent money on it?

A It would depend on relative values.

Q When the time comes for that gas to be marketed, the

consumer should pay then for the gathering charges, shouldn't he?

A For the gathering costs, for the second gathering or the first gathering?

Q The first gathering.

A I do not know, sir. I think it would depend a lot on circumstances.

Q That the consumer should pay for the gas going to market now for the gathering?

A That is right.

Q But you do not think that it necessarily follows that through the rate under public utility procedure, that he should pay anything for the gathering of it now?

A Of the gas that he does not get till later on?

Q That is right.

A I think if he pays to gather it once, that is enough.

Q Under your scheme, he does not pay for it now. The producer is putting up the money now.

A That is right.

Q So the present day consumer is not paying for the gathering of that gas today.

A I am not saying he does not. I am suggesting he might be one of several contributors to the scheme.

Q But for the purposes of discussion we are assuming for the moment that we will say the producer pays this , , , . .

A Oh I see.

Q That is the cost for gathering gas that is to be stored.

Q Now assuming he does that, that means that one person only is paying for it, it is the consumer?

A That is right.

Q Now some day that gas will be marketed?

A That is right.

Q And it would be fair to expect the consumer when he does buy that gas, that through his price he will pay the cost of gathering it, would it not?

A I think he would pay something for gathering, whether it is an equivalent amount or not, I would not care to say at this etage, and I think this too, Sir, the fact that it has to be brought back from the point at which it was stored and put back into the system is one of the elements of cost and I do not think it should be duplicated.

Q Would that not depend on how badly he wanted it?

A I think so.

Q And if the consumer fifteen years hence wants that stored gas, do you think it would be unfair to him to ask him to pay through his then rate the amount that has been spent on it plus interest on the money spent?

A It would depend upon whether the amount spent on it has enhanced its value..

Q Even although money has been spent under an Order of the Board?

A Even so.

Q So I am just trying to get your thought on this thing, Mr. Hamilton, Now am I right in this that you suggest that the Board might well consider ordering somebody to spend money on this excess gas, even although under the plan set up it is not reasonably assured that that party is going to get his money back and interest?

A Well of course it depends on how you view the repressuring cost,

whether you deal with it as a payment for a commodity or something that has enhanced its value or whether you treat it as an operating cost in connection with the sale of the remaining gas. I would estimate that certainly as the minimum condition, if he is going to pay more for repressured gas than he gets for the gas he sells, then I do not think he should sustain the net loss on the two combined, that I think would represent the minimum position.

Q The proposition, that I put to you is this, that it would be more economical all around that the stored gas be taken care of through the sales of, scrubbed gas in the market, because you get away from that interest factor?

A Oh, I do not think you get away from the interest. There is nothing you can do to avoid it.

Q What I mean is this, if the consumer, through the rate, bears the total cost, we do not have this factor of compound interest?

A You have the factor but you just do not see it there.

Q But I am suggesting to you that the consumer then is really now putting up something in his rate to provide for a future supply of gas which he figures he may need?

A Thatis right.

Q And what I am suggesting is that in the end it is better for the consumer that it be done that way, than to face the possibility at some later date of paying to some private individual, producer or anybody else, interest on his money over a period of years, a return.....

A That might be so.

Q All right. Now let us talk about the returns, the later returns, and that is dealt with at Page 18 of your Volume 2. Now would you agree with this that a dollar paid out or to be paid out for taxes is no more available as income and return than a dollar

spent for labour or any other legitimate expense?

A Yes.

Q And is it not true that income tax imposed on the company or on any person, under the Income War Tax Act and the Excess Profits Tax, that it constitutes a debt or liability of the company?

A Yes.

Q And in some cases of which you are probably aware, that debt takes priority over some claims of other parties?

A Yes.

Q Now on page 18 of your Volume 2, the figures in the first column, as I understand it, include the amount which it is estimated will be paid to the Dominion for Income Taxes, or somebody, for taxes?

A No sir.

Q That the total return, the first one.....

A The first column represents 15-5/6% regrdless of what it might be.

Q I know, but a part of that goes to the Government for income taxes, does it not?

A Pardon?

Q I say a part of that goes to the Government for income taxes.

A It happens to, yes, a very substantial part of it happens to.

Q So that I say in that first column, the figure in this, includes amounts which it is estimated will be paid for income taxes?

A That is correct, and that is why the column is entitled "Total Return on Capital Employed".

Q Yes?

A To be quite clear that that is for taxes.

Q And those amounts in that first column do not, I suggest, solely represent a return on the capital employed, it is a return on the capital employed plus the taxes, is that not so?

A No, sir, I say that is return on the capital employed out of which you are allowed to pay a portion to the Government but it is a return on the capital employed, at least it is intended so to be.

Q But you told me earlier that the company's obligation for income taxes was a debt and a liability, the same as any other operating expense.

A That is correct.

Q What I cannot understand, frankly, is why it is in any different position than any other operating expense, now just tell me why is it?

A Well just this, sir, wages you pay before you make money. The taxes you pay after you make the money.

Q But you do not make the money till after you pay the taxes, do you?

A Well . . . . .

Q You only have it for the purpose of paying it out in taxes.

A You do not pay taxes unless you have a net income.

Q No, but it means a re-imbursement or a remuneration or compensation for your capital that is employed, I mean this does.

A That is correct.

Q And as a matter of fact is it not a return on capital employed, I will change that, is not the return on capital employed 60% of these items in that first column?

A That is a way of looking at it, frankly myself I say this is a return out of which you must pay something; in other words you get this return but you cannot keep it.

Q It is only 60% you keep and the other 40% you can give to the Government under certain circumstances and conditions.

A Yes, but under other circumstances and conditions the percentage would be different.

Q I know but so far as, we are talking now about the Madison.

A That is right.

Q And these figures, I suggest, and they are all estimates except for 1944, that 60% is really all it is, 60% represents the compensation or the remuneration for your capital and the other 40% represents estimated liabilities of the company to the Government, is that not so?

A The tax is slightly more than 40%.

Q More than 40%?

A Yes.

Q In what way?

A By reason of the depreciation of the assets.

Q Oh yes, but so far as the utility for regulation is concerned, is that not what this represents?

A That is right.

Q And then on the next page, Mr. Hamilton, page 19, you state, the last sentence in the first paragraph there, and it says in effect that if it is deemed expedient ultimately, then the return in the earlier years should be set at a rate less than that which would otherwise be fixed, and you are there referring to this business on in the later years when there is a smaller amount or a small rate base, - there may be some compensation other than by way of rate of return.

A Just for the sake of the record, Mr. Chambers, I do not say the rate should be set, I said "might fairly be set".

Q I am sorry. Now then I am just putting these questions

for the purpose of exploring this. Now whom do you suggest can make the decision with respect, as to whether ultimately the utility is to be afforded compensation independent of a stated return, and frankly I have in mind, Mr. Hamilton, the remarks that the Chairman made the other day as to what or who should control who, precedent and so on.

A The only contribution that I can make there, sir, is to suggest that there is a very strong likelihood of the utility company asking for compensation of some kind if it continues to operate after it is fully amortized and when it receives absolutely nothing for the continued operation.

Q And when you use the word "ultimately" you are referring to 20 years from now?

A I am referring to a period . . . . .

Q 20 or 25 years from now?

A Yes, it is not only a case, sir, when the rate base is small, it is when the rate base could be totally non-existent perhaps and there would be absolutely no contribution made to compensate them for staying in business.

Q Well now, do you agree or do you state that the present personnel of this Board could not very effectively control what might or might not be done 20 or 25 years from now?

A That is correct.

Q And in any event, Mr. Hamilton, aside from that, I suggest that the Board, in fixing present day rates of return, should use as its yardstick, earnings and rates in other businesses and appraise hazards and so on and be guided by that and not by what might or might not happen as to compensation 25 years from now.

A What is going to happen twenty-five years from now is one of the elements in determining the risk and you must determine the risk to determine whether or not you have a comparable business.

Q No, but I understood you to recommend there should be a lower rate of return now, that is - you suggest that the situation should be canvassed ?

A Yes sir.

Q Of allowing a lower rate now in view of the necessity of allowing something at the period in later years when there is no rate base ?

A Yes.

Q What I am putting to you is this that the Supreme Court of Canada, and I am referring to the extract which Mr. Baker had in Exhibit 106, says, that you must fix present day rates of return on present day situations, not only of Utility Companies but what is going on in unregulated companies. In other words I suggest that this matter of compensation or no compensation in future years is a matter that should be left to be taken care of when it is arrived at.

A Then it automatically needs to be taken care of twice, that is what is bothering me.

Q But if a Company is allowed a return gauged on the return of other investments under present day conditions, how do you suggest you are going to get a return twice ?

A Well I can see where a Company would be loathe to continue to operate after its rato base had been fully amortized and paid for by past consumers and after although there was still service left to be performed, and I am not at the moment concerned with the legality of the viewpoint as with its reasonableness.

Q I see. Now on that same Page 19 of Volume 2, Exhibit 124, you refer to the 1944 Financial Post survey of corporate security, and state that it shows that of fifty-three utility companies, forty-nine reflected funded debt and four do not. Now I suggest to you Mr. Hamilton, that not one of those fifty-three utility companies is solely or exclusively engaged in the business of handling or dealing with a wasting asset ?

A I would concur in that. That is a quite likely proposition. There would be some that are associated with a wasting asset, Canadian Western for one is an example of them and North Western is another.

Q But you do not suggest that the Canadian Western is irrevocably tied to a wasting asset in one particular field ?

A No, nor is Madison altogether but there is a difference in degree and it is difference in degree rather than of kind.

Q Is not the degree considerable. In other words is not the Madison situation serving the needs of a particular field ?

A Yes.

Q And when that field is gone or not enlarged the Madison operation comes to an end ?

A That is right.

Q And that is the reason that you and Professor Stewart as I understand you suggest that arriving at the accrued depreciation that you must do it on the basis of how long the field will last. Now do you know of any similar company to Madison that is performing the same peculiar type of operation with a funded debt.

A I can think of an analogous case within my own experience and several cases of it in the lumber business where the financing of tracts of timber is by mortgage with instalment payments.

Instalments sometimes being on a straight line annual basis and sometimes geared to the cut, that is so many dollars paid for every thousand cubic foot cut off.

Q But those companies do not they keep acquiring more assets to waste ?

A Sometimes, yes sir, but some of them are one venture companies. Some of the American Gas Companies of course I assume are somewhat similar to Madison.

Q What type would it be-carrying on the operations in the field itself ?

A I am thinking more perhaps of transporting, moving it from one point to another.

Q No, but have not those transportation companies access to more than one field and capable of extending and taking in other fields ?

A I would think so.

Q Yes, thanks.

THE CHAIRMAN: I do not think I should ask anyone else to cross-examine Mr. Hamilton at this time. Can we have any indication of how much longer we may be with Mr. Hamilton. I only ask so that I may make the necessary transportation arrangements for going home.

MR. STEER: I have very few questions.

MR. FENERTY: I have very few.

MR. HARVIE: I have very few.

MR. McDONALD: I think we should get through tomorrow so far as I am concerned.

THE CHAIRMAN: Well it does not matter if we do not, so far as I am concerned but if there is that hope there may be

some tentative arrangement I can make.

MR. HARVIE: It might happen if we can get through we might sit tomorrow afternoon.

THE CHAIRMAN: I have other hearings for tomorrow afternoon unfortunately.

(At this time the Hearing was adjourned until 9.30 A. M. December 18th, 1945.)